



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

November 15, 2005

MEMORANDUM TO: C. William Reamer, Director  
Division of High-Level Waste Repository Safety  
Office of Nuclear Material Safety  
and Safeguards

FROM: Robert M. Latta, Senior Site Representative */RA/*  
Fuel Cycle & Decommissioning Branch  
Division of Nuclear Material Safety  
Region IV

Jack D. Parrott, Senior On-Site Licensing Representative */RA/*  
Project Management Section A  
Division of High-Level Waste Repository Safety  
Office of Nuclear Material Safety  
and Safeguards

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION ON-SITE LICENSING  
REPRESENTATIVES' QUARTERLY REPORT ON THE YUCCA  
MOUNTAIN PROJECT FOR JULY, AUGUST, SEPTEMBER, 2005

The purpose of this memorandum is to transmit the U.S. Nuclear Regulatory Commission (NRC) On-Site Representatives' (ORs') Quarterly report for July, August, September, 2005.

This report highlights a number of Yucca Mountain Project activities of potential interest to NRC staff. The ORs continue to respond to requests from NRC Headquarters staff to provide various documentation and feedback related to Key Technical Issues (KTIs) and their resolution. During this reporting period, the ORs continued to observe matters associated with Yucca Mountain site activities, KTIs, and audits. The ORs also attended various meetings and accompanied NRC staff on visits to Yucca Mountain.

In accordance with 10 CFR 2.390 of NRC's "Rules of General Applicability," a copy of this letter will be available electronically in the NRC Public Document Room or from the Publicly Available Records' component of NRC's document system "Agencywide Documents Access and Management System" (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions about this report or its attachments, please call Robert Latta on (702) 794-5048, or Jack Parrott on (702) 794-5047.

Attachments:

1. "U.S. Nuclear Regulatory Commission On-Site Licensing Representatives' Quarterly Report Number OR-05-04 for the Reporting Period July, August, September, 2005"
2. Table 1: "U.S. NRC On-Site Licensing Representatives' Tracking Report for Open Items Followed in Quarterly OR Report"

cc: See attached list.

Memorandum to C.William Reamer, Director, from R. Latta and J. Parrott, dated: 11/15/2005  
cc:

A. Kalt, Churchill County, NV	T. Story, NV Congressional Delegation
L. Pearce, Churchill County, NV	R. Herbert, NV Congressional Delegation
R. Massey, Churchill/Lander County, NV	R. Lambe, NV Congressional Delegation
I. Navis, Clark County, NV	S. Joya, NV Congressional Delegation
E. von Tiesenhausen, Clark County, NV	K. Kirkeby, NV Congressional Delegation
J. Gervers, Clark County, NV	K. Finfrock, NV Congressional Delegation
W. Kirby, Esmeralda County, NV	R. Loux, State of NV
G. McCorkell, Esmeralda County, NV	S. Frishman, State of NV
R. Damele, Eureka County, NV	S. Lynch, State of NV
L. Marshall, Eureka County, NV	P. Guinan, Legislative Counsel Bureau
A. Johnson, Eureka County, NV	M. Plaster, City of Las Vegas
L. Klusmire, Inyo County, NV	M. Jordan, City of N. Las Vegas
M. Yarbrow, Lander County, NV	M. Murphy, Nye County, NV
J. Brandt, Lander County, NV	B. J. Garrick, NWTRB
R. Hammon-Hornbeck, Lincoln County, NV	J. Treichel, Nevada Nuclear Waste Task Force
G.T. Rowe, Lincoln County, NV	P. Johnson, Citizen Alert
L. Rasura, Lincoln County, NV	P. Litster, Shundahai Network
M. Baughman, Lincoln County, NV	P. Golan, DOE/Washington, D.C.
A. Robinson, Lincoln County, NV	G. Runkle, DOE/Washington, D.C.
L. Mathias, Mineral County, NV	C. Einberg, DOE/Washington, D.C.
D. Swanson, Nye County, NV	S. Gomborg, DOE/Washington, D.C.
C. Trummell, Nye County, NV	J. Arthur, DOE/ORD, Las Vegas, NV
G. Hollis, Nye County, NV	R. Dyer, DOE/ORD, Las Vegas, NV
D. Hammermeister, Nye County, NV	A. Benson, DOE/ORD, Las Vegas, NV
G. Perea, White Pine County, NV	J. Ziegler, DOE/ORD, Las Vegas, NV
M. Simon, White Pine County, NV	A. Gil, DOE/ORD, Las Vegas, NV
J. Ray, NV Congressional Delegation	W. Boyle, DOE/ORD, Las Vegas, NV
M. Henderson, NV Congressional Delegation	M. Ulshafer, DOE/OCRWM, Las Vegas, NV
D. Cornwall, NV Congressional Delegation	C. Marden, BNL, Inc.
S. Wade, DOE/ORD, Las Vegas, NV	C. Hanlon, DOE/ORD, Las Vegas, NV

T. Gunter, DOE/OCRWM, Las Vegas, NV  
N. Hunemuller, DOE/ORD, Las Vegas, NV  
M. Van Der Puy, DOE, Las Vegas, NV  
J. Williams, DOE, Las Vegas, NV  
R. Craun, DOE/ORD, Las Vegas, NV  
M. Urie, DOE, Las Vegas, NV  
C. Sorensen, BSC/BSC, Las Vegas, NV  
T. Feigenbaum, BSC/SAIC, Las Vegas, NV  
M. Mason, BSC/SAIC, Las Vegas, NV  
S. Cereghino, BSC/SAIC, Las Vegas, NV  
E. Mueller, BSC/PR, Las Vegas, NV  
D. Beckman, BSC/B&A, Las Vegas, NV  
R. Hassan, NQS, Las Vegas, NV  
E. Opelski, NQS, Las Vegas, NV  
P. Rail, BSC, Las Vegas, NV  
J. Bess, BSC/SAIC, Las Vegas, NV  
J. Birchim, Yomba Shoshone Tribe  
R. Holden, NCAI  
R. Clark, EPA  
R. Anderson, NEI  
R. McCullum, NEI  
S. Kraft, NEI  
J. Kessler, EPRI  
D. Duncan, USGS  
R. Craig, USGS  
W. Booth, Engineering Services, LTD  
L. Lehman, T-REG, Inc.  
R. Murray, MTS  
J. Kennedy, Timbisha Shoshone Tribe  
T. Hanford, GAO  
J. Saldarini, BSC, Las Vegas, NV

J. Bacocho, Big Pine Paiute Tribe of the Owens Valley  
T. Kingham, GAO  
D. Feehan, GAO  
E. Hiruo, Platts Nuclear Publications  
G. Hernandez, Las Vegas Paiute Tribe  
R. Arnold, Pahrump Paiute Tribe  
G. Hudlow, Public Citizen  
A. Elzeftawy, Las Vegas Paiute Tribe  
B. Durham, Timbisha Shoshone Tribe  
W. Briggs, Ross, Dixon & Bell  
C. Myers, Maopa Paiute Indian Tribe  
R. Wilder, Fort Independence Indian Tribe  
D. Vega, Bishop Paiute Indian Tribe  
J. Egan, Egan, Fitzpatrick & Malsch  
J. Leeds, Las Vegas Indian Center  
J. C. Saulque, Benton Paiute Indian Tribe  
C. Bradley, Kaibab Band of Southern Paiutes  
R. Joseph, Lone Pine Paiute-Shoshone Tribe  
L. Tom, Paiute Indian Tribes of Utah  
E. Smith, Chemehuevi Indian Tribe  
D. Buckner, Ely Shoshone Tribe  
D. Eddy, Jr., Colorado River Indian Tribes  
B. Gattoni, Burns & Roe  
H. Jackson, Public Citizen  
P. Thompson, Duckwater Shoshone Tribe  
S. Devlin, Public Citizen  
D. Irwin, Hunton & Williams  
J. Donnell, MTS  
G. Hellstrom, DOE/OCRWM  
D. Crawford, Inter-Tribal Council of NV  
V. Guzman, Inter-Tribal Council of NV Chairwoman,  
Walker River Paiute Tribe

November 15, 2005

MEMORANDUM TO: C. William Reamer, Director  
Division of High-Level Waste Repository Safety  
Office of Nuclear Material Safety  
and Safeguards

FROM: Robert M. Latta, Senior Site Representative **/RA/**  
Fuel Cycle & Decommissioning Branch  
Division of Nuclear Material Safety  
Region IV

Jack D. Parrott, Senior On-Site Licensing Representative **/RA/**  
Project Management Section A  
Division of High-Level Waste Repository Safety  
Office of Nuclear Material Safety  
and Safeguards

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION ON-SITE LICENSING  
REPRESENTATIVES' QUARTERLY REPORT ON THE YUCCA  
MOUNTAIN PROJECT FOR JULY, AUGUST, SEPTEMBER, 2005

The purpose of this memorandum is to transmit the U.S. Nuclear Regulatory Commission (NRC) On-Site Representatives' (ORs') Quarterly report for the period of July, August, September, 2005.

This report highlights a number of Yucca Mountain Project activities of potential interest to NRC staff. The ORs continue to respond to requests from NRC Headquarters staff to provide various documentation and feedback related to Key Technical Issues (KTIs) and their resolution. During this reporting period, the ORs continued to observe matters associated with Yucca Mountain site activities, KTIs, and audits. The ORs also attended various meetings and accompanied NRC staff on visits to Yucca Mountain.

In accordance with 10 CFR 2.390 of NRC's "Rules of General Applicability," a copy of this letter will be available electronically in the NRC Public Document Room or from the Publicly Available Records' component of NRC's document system "Agencywide Documents Access Management System" (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions about this report or its attachments, please call Robert Latta on (702) 794-5048, or Jack Parrott on (702) 794-5047.

Attachments:

1. "U.S. Nuclear Regulatory Commission On-Site Licensing Representatives' Quarterly Report Number OR-05-04 for the Reporting Period July, August, September, 2005"
2. Table 1: "U.S. NRC On-Site Licensing Representatives' Tracking Report for Open Items Followed in Quarterly OR Report"

cc: See attached list.

**DISTRIBUTION:**

ACNW	CNWRA	NMSS DO r/f	HLWRS r/f	LSN	LKokajko	ECollins
JGuttman	LChandler	KStablein	ACampbell	MYoung	JMoore	MBailey
MZobler	WMaier	GMorell	TCombs	TSmith	DHiggs	SRohrer
KMcConnell	EO'Donnell	HArlt	MNataraja	WPatrick	JBradbury	RJohnson
TMcCartin	JTrapp	KChang	TMatula	JRubenstone	BSpitzberg	TKobetz
WSmith						

**ML052770329**

OFC	DNMS/FCDB	NMSS/HLWRS	TECH ED	NMSS/HLWRS	OCC	NMSS/HLWRS	NMSS/HLWRS
NAME	RLatta	JParrott	EKraus	FBrown	PMoulding	ECollins	CWReamer
DATE	11/02/2005	11/02/2005	09//29/2005	11/10/05	11/ 04/05	11/15/05	11/15/05

OFFICIAL RECORD COPY

**U.S. NUCLEAR REGULATORY COMMISSION  
ON-SITE LICENSING REPRESENTATIVES' QUARTERLY  
REPORT  
NUMBER OR-05-04,  
FOR THE REPORTING PERIOD OF  
JULY, AUGUST, SEPTEMBER, 2005**

Attachment 1

## TABLE OF CONTENTS

U.S. NUCLEAR REGULATORY COMMISSION  
ON-SITE LICENSING REPRESENTATIVES' QUARTERLY REPORT  
NUMBER OR-05-04  
FOR THE REPORTING PERIOD OF JULY, AUGUST, SEPTEMBER, 2005

### PAGE

TABLE OF CONTENTS .....	i
ACRONYMS AND ABBREVIATIONS .....	ii
EXECUTIVE SUMMARY .....	1
REPORT DETAILS .....	.
Introduction	
Objectives	
1. Site Activities and Data Acquisition .....	3
2. Outreach Activities .....	3
3. QA and Engineering .....	4
4. General Activities .....	7

## ACRONYMS AND ABBREVIATIONS

<b>ACRO</b>	<b>MEANING</b>
ADAMS	Agencywide Documents Access and Management System
BSC	Bechtel SAIC Company, LLC
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CNWRA	Center for Nuclear Waste Regulatory Analyses
CR	Condition Report
DOE	U.S. Department of Energy
HLW	High-Level Waste
KTI	Key Technical Issue
LA	License Application
NRC	U.S. Nuclear Regulatory Commission
OQA	Office of Quality Assurance
OR	On-Site Representative
PA	Performance Assessment
PRD	Project Requirement Document
PCSA	Pre-closure Safety Analysis
QA	Quality Assurance
QARD	Quality Assurance Requirements Description
RTN	Requirements Traceability Network
SDD	System Description Document
YMP-RD	Yucca Mountain Site Characterization Project-Requirements Document

## **EXECUTIVE SUMMARY**

### **SITE ACTIVITIES AND DATA ACQUISITION**

The week of August 15, 2005, personnel from the Center for Nuclear Waste Repository Analyses (CNWRA) conducted airborne dust sampling at Yucca Mountain in support of dust deliquescence research the CNWRA is doing for NRC.

### **OUTREACH ACTIVITIES**

On July 7, 2005, an OR accompanied personnel from the Clark County, Nevada, Nuclear Waste Program, on a tour of the public portions of a newly constructed NRC hearing facility in Clark County.

On July 20, 2005, NRC and U.S. Department of Energy (DOE) high-level waste staff, including the ORs, held a Technical Exchange, in Las Vegas, to discuss technical information for the potential Yucca Mountain Repository.

### **EVALUATION OF CURRENT TREND INFORMATION**

The ORs reviewed the Yucca Mountain Project's "Trend Evaluation Report" for the third-quarter of fiscal year 2005. Based on the analysis of information contained in this report, three major contributors to the causes of Condition Reports (CRs) were identified. These contributors involved: 1) human performance errors, 51 percent; 2) management problems, 18 percent; and 3) communications issues, 12 percent (i.e., procedure content). The ORs noted an increase in the self-identification of adverse trends. This is a positive indication of organizational acceptance of the Corrective Action Program (CAP), system demonstrating increased awareness of the trending program.

### **OBSERVATION OF SOFTWARE PROCESS CONTROL AUDIT**

The ORs observed the conduct of DOE's Office of Quality Assurance performance-based audit of the implementation of Bechtel SAIC Company, LLC quality assurance requirements for software described in the Quality Assurance Requirements and Description and governing procedures.

Based on the review of the audit results and observations of the team's activities, the ORs determined that the planning and conduct of this audit were effective.

### **EVALUATION OF REQUIREMENTS MANAGEMENT PROGRAM**

During this reporting period the ORs examined the Project's processes and controls associated with the configuration and requirements management program. Based on the review of project documents and recent CRs the ORs determined that administration of the CAP has not been effective in: (i) resolving repeated deficiencies related to requirements management and design control; (ii) resolving adverse trends concerning these issues; and (iii) initiating the actions to identify and appropriately address the root-causes of these issues.

The ORs will continue to monitor this area of concern and document the results in a future OR report.



### GENERAL ACTIVITIES

During this reporting period, representatives of the U.S. Government Accountability Office interviewed the ORs regarding the Project's quality assurance program.

On July 22, 2005, NRC management and staff conducted a site visit to Yucca Mountain.

## REPORT DETAILS

### INTRODUCTION

The principal purpose of the On-Site Representatives' (ORs') Quarterly Report is to inform U.S. Nuclear Regulatory Commission (NRC) managers, staff, and contractors about the U.S. Department of Energy's (DOE's) programs in repository design; performance assessment (PA); performance confirmation; and environmental studies that may be useful in fulfilling NRC's role during prelicensing consultation. The primary focus of this and future OR reports will be on DOE's programs for subsurface and surface-based testing, PA, data management systems, environmental studies, and quality assurance (QA). Relevant information includes new technical data, DOE's plans and schedules, and the status of activities to support preparation of the License Application (LA). The ORs also take part in activities associated with resolving NRC Key Technical Issues (KTIs).

This report covers the period of July 1, 2005, through September 30, 2005.

### OBJECTIVES

An OR's mission is to serve principally as a point of prompt information exchange and to identify preliminary concerns with site investigations and potential licensing issues. The ORs carry out this role by gathering and evaluating information, identifying concerns, and bringing more significant issues to NRC management's attention. Communication with DOE is accomplished by exchanging information on data, plans, schedules, documents, activities and pending actions, and resolution of issues. The ORs, with input from NRC Headquarter's management, interact with DOE scientists, engineers, and managers, regarding the implementation of NRC policies, programs, and regulations. The ORs also focus on such issues as design controls, data management systems, PA, and KTI resolution. A primary OR role is to identify areas, in site studies, activities, or procedures, that may be of interest or concern to the NRC staff.

#### 1. SITE ACTIVITIES AND DATA ACQUISITION

The week of August 15, 2005, personnel from the Center for Nuclear Waste Regulatory Analyses (CNWRA) conducted airborne dust sampling at Yucca Mountain in support of dust deliquescence research the CNWRA is doing for NRC. The sampling was attempted at the entrance to the Exploratory Studies Facility and underground. The samples were split with DOE. However, because of rain and high humidity at the time of the sampling, insufficient sampling was obtained. Another round of sampling may be attempted later this fall.

#### 2. OUTREACH ACTIVITIES

On July 7, 2005, an OR accompanied personnel from the Nuclear Waste Program of the Clark County, Nevada, Department of Comprehensive Planning through a tour of the public portions of a newly constructed NRC hearing facility in Clark County. This facility was built in anticipation of hearings on a future license application for a high-level-waste (HLW) repository.

On July 20, 2005, NRC and DOE HLW staff, including the ORs, held a technical exchange in Las Vegas to discuss the extent of technical information necessary to support an NRC decision concerning the potential Yucca Mountain Repository. The technical exchange was open to the public and was held in the newly constructed NRC hearing facility.

### 3. QA AND ENGINEERING

#### 3.1 Evaluation of Current Trend Information

The Yucca Mountain Project's "Trend Evaluation Report" for the third-quarter of fiscal year 2005, was released in August 2005. This report is an integral part of the Corrective Action Program (CAP) and is used to identify patterns and the causes of Condition Reports (CRs), so that management can identify effective resolutions. The report used the source data from adverse conditions associated with Office of Repository Development activities from the previous 12 months, April 1, 2004, to June 30, 2005. (The adverse conditions include those CRs classified as Level A, B, or C).

Based on the analysis of this report, three major contributors to the causes of CRs were identified. These contributors involved: 1) human performance errors, 51 percent; 2) management problems, 18 percent; and 3) communications issues, 12 percent (i.e., procedure content). These values represent approximately the same relative distribution as reported in the previous two trend reports. To address the lingering issues related to human performance, the project formed the Human Performance Steering Committee in early 2005, to oversee the implementation of management initiatives and improvements in human performance. However, the Project's efforts, which have been focused on reducing error-likely situations and reinforcing the actions and behaviors necessary to support a nuclear safety and quality culture, have not resulted in discernable improvements in this area. Specifically, the current performance indicators within this area continue to reflect a rating that warrants increased management attention and resources.

The trend report also identified that the average number of conditions issued per month has remained essentially unchanged, with 76 initiated during the second quarter and 74 issued during the third quarter. As documented in the report, the 12-month average is also 74 per month. The ORs noted an increase in the self-identification of adverse trends. This is a positive indication of organizational acceptance of the CAP system for increased awareness of the trending program. For example, one statistically significant trend, identified by line personnel and documented in CR 6011, concerned continuing errors in analysis and modeling reports.

The ORs will continue to monitor the Project's human performance improvement initiatives, as well as the CAP activities related to self-identification of adverse trends, and the results will be documented in a future report.

#### 3.2 Observation of Software Control Process Audit

The ORs observed the conduct of DOE's Office of Quality Assurance (OQA) performance-based audit of the implementation of Bechtel SAIC Company, LLC (BSC) QA requirements for software described in the Quality Assurance Requirements and Description (QARD) and governing procedures. Specifically, OQA's audit team, which included technical specialists, examined the adequacy and effectiveness of software

control processes used in BSC's Engineering organization. Additionally, the audit team reviewed the effectiveness of corrective actions for previous CRs issued for software-related activities.

To evaluate the implementation and effectiveness of software control processes, the audit team examined the related activities including: (1) planning; (2) procurement; (3) development; (4) qualification; (5) configuration management; (6) control of software use; and (7) problem reporting. The audit team also examined the adequacy of incorporation of requirements into implementing procedures. As a result of the team's oversight activities, it was determined that BSC's Engineering organization was generally implementing effective software control process. The team also concluded that corrective actions for previously identified CRs were adequate and no repetitive conditions were identified. However, one condition adverse to quality was identified concerning inconsistent documentation of procedural requirements for use of software. The audit team also noted that because software procurement, development, and testing activities were still under development, there was insufficient information to establish the adequacy of implementation within these areas.

Based on the review of the audit results and observations of the team's activities, the ORs determined that the planning and conduct of this audit were effective. The audit team, including the technical specialists, were prepared and they effectively used the developed checklist items to evaluate the software control processes. No audit observation inquiries were identified and the ORs determined that this oversight activity was effectively performed.

### 3.3 Evaluation of Requirements Management Program

During this reporting period, the ORs reviewed a number of recent CAP documents indicating repetitive deficiencies in the implementation of the Project's requirements management process. Requirements that the Project must demonstrate compliance within a potential LA include NRC regulations contained in 10 CFR 63.142 (d), "Design Control" that are implemented through the Projects' QARD, Section 3.2.1 "Design Input Control." These reviews were performed because repetitive deficiencies and the failure to implement timely corrective actions associated with the requirements management process could have direct implications on the quality of the LA that DOE is anticipating submitting to NRC for the proposed repository at Yucca Mountain.

As a result of the review of numerous CRs, issued from January 2004 through mid-2005, concerning the flow-down of requirements and design control issues, approximately 35 deficiencies specifically related to project requirements and design control were identified. This review was performed to determine if: (i) issues related to requirements management had been previously identified; and (ii) to establish if corrective and preventive actions had been effective. The ORs also noted that audits and surveillances performed during the January 2004 through mid-2005 time frame had identified numerous other CRs related to deficiencies involving design control issues, including project requirements flow-down and design input control processes.

Based on the review of these documents it appears that significant deficiencies, involving inadequate design control and ineffective requirements management dating back nearly 2 years, as identified in CR 4476, have not been appropriately resolved. Although the corrective actions for this CR were to replace the requirements management system with software that had been tested and approved for requirements

management, this action has not been accomplished to date, and CR 4476 remains open. Relative to the issues identified in this CR, the ORs noted that because the design control information contained in the Project Requirements Document (PRD), which implements the requirements from the QARD, is not current, and BSC is still in the process of loading/testing the new requirements management software, there does not appear to be a process in place to serve as a requirements flow-down control mechanism. It is also uncertain how these quality affecting activities have been appropriately controlled since December 2003, when the design was made static in anticipation of a December 2004 LA submittal. Furthermore, as a result of the apparent loss of design configuration and requirements management, related to not maintaining the PRD current, it is not clear how technical products such as System and Facility Description Documents have continued to be developed without established requirements flow-down controls in place.

The ORs also identified that as a result of the failure to implement timely corrective and preventive actions associated with CR 4476, successive Level A CRs have been initiated in an attempt to identify and resolve inadequacies in the design control process, including the failure to appropriately maintain the Project's requirements control documents. However, these CRs were subsequently downgraded by the Project's Management Review Committee to Level B significance, which resulted in root-cause evaluations not being performed.

During this reporting period, NRC staff observed a DOE OQA audit of BSC's design engineering products related to the Fuel Handling and Canister Handling Facilities. This audit included an evaluation of design control. The evaluation, while cognizant of some of the CR issues discussed in this section, did not note any conditions resulting from these CR issues. However, that evaluation was limited to the work products from the two facilities audited and to the areas of expertise of the technical auditors. The ORs' reviews described in this section, looked at a wider range of CRs, CR issues, and design work.

At the conclusion of this reporting period, actions were still pending on the CRs reviewed. However, the ORs determined that despite the repetitive nature of the deficiencies involving the requirements management program, as identified in numerous CRs, the cumulative impact or significance of these conditions does not appear to have been effectively addressed within the Project's CAP. Specifically, it appears that the administration of the CAP has not been effective in: (i) eliminating the repeated identification of deficiencies related to requirements management and design control; (ii) identifying and resolving adverse trends concerning these issues; and (iii) initiating the actions to identify and appropriately address the root-cause of these issues. Therefore, the ORs will continue to monitor this area of concern and document the results in a future OR report.

#### 4. GENERAL ACTIVITIES

##### 4.1 Meetings

###### High-Level Waste NRC/DOE Technical Exchange on Information to Support a Safety Decision

On July 20, 2005, representatives from NRC's high-level waste staff, including the ORs, participated a technical exchange with DOE personnel in Las Vegas, NV, to discuss information related to the NRC safety evaluation for the potential Yucca Mountain Repository. The technical exchange was open to the public and was held in hearing room facilities constructed in anticipation of hearings on a future LA for a HLW repository.

###### NRC Advisory Committee on Nuclear Waste

On September 19, 2005, the ORs conducted a site visit for members of the NRC's Advisory Committee on Nuclear Waste, and representatives from the State of Nevada. The site visit included an update on testing activities, and a general overview of the geology, hydrology, faulting, and volcanism.

##### 4.2 Other Activities

During this reporting period, representatives of the U.S. Government Accountability Office (GAO) interviewed the ORs as part of work requested by the U.S. House of Representatives, Federal Workforce and Agency Organization Subcommittee. The GAO is reviewing the Project's QA program.

On July 22, 2005, NRC management and staff conducted a site visit, to Yucca Mountain, that included Alcove 5.

**U.S. NRC ON-SITE LICENSING REPRESENTATIVES' TRACKING REPORT FOR OPEN ITEMS FOLLOWED IN  
QUARTERLY OR REPORTS**

**Table 1**

<i><b>OPEN ITEMS NUMBER (For Tracking Only)</b></i>	<i><b>BRIEF DESCRIPTION OF OPEN ITEM</b></i>	<i><b>OPEN ITEM OR-REPORT NO.</b></i>	<i><b>DATE OPEN ITEM CLOSED</b></i>
AOI-OCRWM-OQA-05-20-02	Revise procedure AP-3.13Q to reflect 10CFR63.21 requirements related to completeness of information necessary for LA review.	OR-05-03	
AOI-OCRWM-OQA-05-20-01	Procedural controls for "preliminary" classification of Engineering calculations will be revised to clearly define the designation of completed calculations suitable to support the requisite safety analysis.	OR-05-03	
AOI-YMSCO-ARC-02-12-01	Identifies the need for DOE OQA to ensure that procedure development and review process include a documented evaluation to verify compliance with the requirements of the YMP's QARD.	OR-03-01	OR Report No: OR-03-03 August 15, 2003
OR Open Item 05-02	Pending Project response to the discovery of potential falsification of QA records - completion of second and third initiatives described in the work plan.	OR-05-03	
OR Open Item 05-01	Inconsistencies in the root cause statements developed by the RCA team specifically the root cause related to traceability and transparency issues. Pending resolution of the apparent discrepancies in the RCA for CR-3235 are identified in this Open Item.	OR-05-02	
OR Open Item 04-01	A concern regarding the safety analysis of the ground support system in the ESF.	OR-04-01	OR Report No: OR-04-04 October 27, 2004
OR Open Item 03-06	Based on review of CR-756, 12 quality-affecting procedures were approved without meeting the applicable QARD requirements.	OR-03-05	OR Report No. OR-04-06 March 4, 2005
OR Open Item 03-05	The continued use of unqualified software in quality-affecting technical products appears to be in conflict with the governing requirements of the implementing procedures and the QARD.	OR-03-04	
OR Open Item 03-04	With a tentative date of mid-June to evaluate CAR BSC(B)-03-(C)-107, the RCD has not acted on this CAR in a timely manner and it has remained open for 4 months without resolution.	OR-03-03	OR Report No: OR-03-05 January 12, 2004

**U.S. NRC ON-SITE LICENSING REPRESENTATIVES' TRACKING REPORT FOR OPEN ITEMS FOLLOWED IN  
QUARTERLY OR REPORTS**

**Table 1**

OR Open Item 03-03	An evaluation in DOE's progress in implementing corrective actions associated with CAR B.C.-01-C-001, concerning model validation, the OR reviewed TAPS (approx. 43 models). Based on the results, it could not be established if the evaluation criteria will result in the development of models with adequate confidence for the LA.	OR-03-02	OR Report No: OR-05-02 July 12, 2005
OR Open Item 03-02	During a review of the MII confirmation packages, it was identified that the action statement execution task descriptions and completion schedules for many of the reviewed pkgs had been modified without appropriate justification. Therefore, pending the resolution of this apparent deviation from a commitment to administer the MII in accordance with the requirements of AP-5.1Q, this issue is identified as this OR Open Item.	OR-03-02	OR Report No: OR-04-02 July 8, 2004
OR Open Item 03-01	This Open Item is based on issues on separate DRs: (1) the effective resolution of concerns related to inadequate personnel training; 2) the failure to establish an effective transition plan; and 3) the evaluation of the SCWE issues.	OR-03-01	OR Report No: OR-03-04 October 20, 2003
OR Open Item 02-13	The current status of corrective & preventive actions associated with CAR No. BSC-02-C-01 revealed that not all corrective actions stated had been complete.	OR-02-05	OR Report No: OR-03-05 January 12, 2004
OR Open Item 02-12	Contrary to requirements of the QARD Supplement III 2.4.C, AP-SIII.2Q inappropriately allows for the use of unqualified data. BSC QA procedure change control program failed to identify this issue.	OR-02-05	OR Report No: OR-04-06 March 4, 2005
OR Open Item 02-11	Based on surveillance not identifying specific problems with software functionality for codes tested, 7 - including NUFT, did not pass ITP and/or VTP surveillance.	OR-02-05	OR Report No: OR-03-06 February 18, 2004
OR Open Item 02-10	Pending appropriate evaluation and documentation of the design control attributes associated with requirements of 10 CFR 63.44 and 10 CFR Part 21.	OR -02-04	
OR Open Item 02-09	Pending revision of engineering procedures, to include appropriate design verification considerations.	OR-02-04	OR Report No: OR-03-06 February 18, 2004



**U.S. NRC ON-SITE LICENSING REPRESENTATIVES' TRACKING REPORT FOR OPEN ITEMS FOLLOWED IN  
QUARTERLY OR REPORTS**

**Table 1**

OR Open Item 02-08	The required performance of annual audits' justification for delaying a scheduled audit of YMSCO for 3 months, with an additional extension, does not appear to be adequately supported. Deviation from requirement of sub-section 18.2.1E of the QARD.	OR-02-04	OR Report No: OR-02-06 January 23, 2003
OR Open Item 02-07	Model Validation Impact Assessment addressed the effect of inappropriately validated models on TSPA-SR. Many cases of impact assessments used TSPA-SR results to evaluate the local impacts. It's unclear how this practice evaluated the cumulative impact of all the models in question.	OR-02-01	OR Report No: OR-03-06 February 18, 2004
OR Open Item 02-06	Unqualified Data Impact Assessment - NRC staff identified unqualified data that could be replaced with qualified data for the performance assessment. For the risk-significant components, an evaluation of unqualified data replaced with qualified data would help determine if efforts should be undertaken to qualify the removed data.	OR-02-01	OR Report No: OR-04-02 July 8, 2004
OR Open Item 02-05	Provisions are in place that allow for model validation to continue past issuance of the documentation. The models used in the performance assessment should have adequate support for their representation at the time the performance assessment documentation is issued.	OR -02-01	OR Report No: OR-03-06 February 18, 2004
OR Open Item 02-04	A number of criteria have been developed related to various forms of review. If a review is relied on for model validation, it should be directed at validating the model and it should encompass the full body of information to the extent practical.	OR-02-01	OR Report No: OR-03-01 April 14, 2003
OR Open Item 02-03	More objective criteria (comparison to data not used in the development of the model), typically resulting in higher confidence in model validation are not distinguished from the more subjective, problematic criteria.	OR-02-01	OR Report No: OR-03-02 June 11, 2004
OR Open Item 02-02	Current process controls specify that one or more of nine criteria may be used to validate a model. All the criteria should increase confidence in the modeling process, some criteria do not appear to be appropriate for addressing whether the model is valid for its intended use.	OR-02-01	OR Report No: OR-03-01 April 14, 2003
OR Open Item 02-01	Failure to properly include the specific issues identified in the Concerns Program Final Report in the resolution process may result in not adequately addressing the original employee's concern.	OR-02-01	OR Report No: OR-02-06 January 23, 2003